CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/VD/W.No.11/CSR-03/584r/CEMENT/2017-18 Date: 05.03.2018

TEST REPORT ON CEMENT

* Customer	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
* Agency	:	**Mr. V. Dhananjaya,** No.41/C, 14th Cross Road, Mahalakshmi Layout, Bangalore - 85.
* Name of Work	:	Providing children play equipments at Sai Garden, Singapura Paradise and Lakkappa Layout in Ward No.11 (Kuvempunagara) in Vidyaranyapura Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/BTP/WO/76/2017-18 Dated: 28.02.2018
* Sample ID	:	Cement
Sample Received on	:	03.03.2018
Period of Testing	:	03.03.2018 to 05.03.2018

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988 (RA-2014)	29.50 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988 (RA-2014)	175 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988 (RA-2014)	480 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988 (RA-2014)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

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⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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T-2377

Job No.: CTCE/BBMP/VD/W.No.11/CSR-03/584r/SAND-Gradation/2017-18 — 05.03.2018

TEST REPORT ON SIEVE ANALYSIS OF FINE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
* Agency	: **Mr. V. Dhananjaya,** No.41/C, 14th Cross Road, Mahalakshmi Layout, Bangalore - 85.
* Name of Work	: Providing children play equipments at Sai Garden, Singapura Paradise and Lakkappa Layout in Ward No.11 (Kuvempunagara) in Vidyaranyapura Sub Division, BBMP, Bangalore.
* Reference	: BBMP/EE/BTP/WO/76/2017-18 Dated: 28.02.2018
* Sample ID	: Fine Aggregates
Technical Reference	: IS : 2386 (Part 1) - 1963 (RA-2011)
Sample Received On	: 03.03.2018
Date of Testing	: 05.03.2018

Total Wt. of Aggregates in gms = **1000**

IS Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2011)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	98.00	90-100	90-100	90-100	95-100
2.36	79.00	60-95	75-100	85-100	95-100
1.18	58.80	30-70	55-90	75-100	90-100
600 Micron	37.50	15-34	35-59	60-79	80-100
300 Micron	23.90	5-20	8-30	12-40	15-50
150 Micron	8.30	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-II specific limits.

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Job No.: CTCE/BBMP/VD/W.No.11/CSR-03/584r/AGG/GR/2017-18 05.03.2018

TEST REPORT ON SIEVE ANALYSIS OF COARSE AGGREGATES

* Customer	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
* Agency	:	**Mr. V. Dhananjaya,** No.41/C, 14th Cross Road, Mahalakshmi Layout, Bangalore - 85.
* Name of Work	:	Providing children play equipments at Sai Garden, Singapura Paradise and Lakkappa Layout in Ward No.11 (Kuvempunagara) in Vidyaranyapura Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/BTP/WO/76/2017-18 Dated: 28.02.2018
* Sample ID	:	Coarse Aggregates (40mm)
Technical Reference	:	IS : 2386 (Part 1) -1963 (RA-2011)
Sample Received on	:	03.03.2018
Date of Testing	:	05.03.2018

Total Wt. of Aggregates in gms= **5000**

IS Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2011)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.88	95-100	85-100
20	38.88	30-70	0-20
10	14.24	10-35	0-5
4.75	4.24	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under graded specific limits.

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Job No.: CTCE/BBMP/VD/W.No.11/CSR-03/584r/Cube/2017-18 10.04.2018

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
* Agency	:	**Mr. V. Dhananjaya,** No.41/C, 14th Cross Road, Mahalakshmi Layout, Bangalore - 85.
* Name of the work	:	Providing children play equipments at Sai Garden, Singapura Paradise and Lakkappa Layout in Ward No.11 (Kuvempunagara) in Vidyaranyapura Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/BTP/WO/76/2017-18 Dated: 28.02.2018
* Sample ID	:	Cement Concrete
Technical Reference	:	IS: 516-1959 (RA-2013)
Size of cubes	:	150mmx150mmx150mm
Cross Sectional Area	:	22500 mm^2
* Grade of Concrete	:	M_{15}
Compressive Strength as on	:	28^{th} day
Sample Received on	:	10.04.2018

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	13.03.2018	10.04.2018	8.115	368.5	16.38
2	13.03.2018	10.04.2018	8.226	395.4	17.57
3	13.03.2018	10.04.2018	8.330	415.2	18.45

*Information is furnished by the Customer/Representative.

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Job No.: CTCE/BBMP/VD/W.No.11/CC Tiles/2017-18 19.03.218

TEST REPORT ON CEMENT CONCRETE TILES

* Customer	: **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
* Agency	: **Mr. V. Dhananjaya,** No.41/C, 14th Cross Road, Mahalakshmi Layout, Bangalore - 85.
* Name of the Work	: Providing children play equipments at Sai Garden, Singapura Paradise and Lakkappa Layout in Ward No.11 (Kuvempunagara) in Vidyaranyapura Sub Division, BBMP, Bangalore.
* Reference	: BBMP/EE/BTP/WO/76/2017-18 Dated: 28.02.2018
* Sample ID	: Pre-Polished Designer Cement Concrete Tiles
No of tiles tested	12 No's
Technical Reference	: IS: 1237(2012)
Date of Testing	: 19.03.218

I. DIMENSIONS TEST:

Sl. No.	Test Result			Requirement as per IS: 1237(2012)
	Length (mm)	Breadth (mm)	Thickness (mm)	
1	299	300	25.90	1. length or breadth of tiles shall be ±1 mm. 2. Thickness shall be +15 percent of the minimum thickness
2	298	298	26.45	
3	300	300	26.50	
4	299	299	25.90	
5	298	300	26.75	
6	299	299	25.60	

II. WATER ABSORPTION

Sl. No.	Size of Tiles	Water absorption of tiles (%)	Average (% by Wt)	Requirement as per IS: 1237(2012)
1	300x300x25.4	2.2	2.45	The average percentage of water absorption shall not exceed 10.
2	300x300x25.5	2.4		
3	300x300x25.7	2.3		
4	300x300x25.6	2.5		
5	300x300x25.3	2.6		
6	300x300x25.2	2.7		

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